

FIFTY

March 1979

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75 CENTS

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Subscription Rates

RTTY JOURNAL

Dee Crumpton, Editor & Publisher

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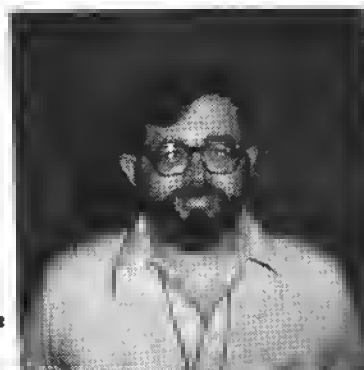
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Greetings to all...

I recently received the December 78 copy of "AREWISE" the official Publication of the Australian National Amateur Radio Teleprinter Society. This rapidly growing publication is excellent with articles on mios, VARTS and news in general about members and RTTY. I found no information on joining their organization but have their address:

The Secretary
c/o W.I.C. 14 Atchison Street
Crows Nest, N.S.W. 2065
Australia

From "AREWISE" was one note of interest to the DX'er.

ZE1CE is a very interesting station, it is a repeater in Rhodesia, but you can work through it if you know how. The frequency is 14075KHZ, and you have to challenge it to work through it such as... ZE1CE - SDE VK2SG 1614Z 78/11/12 R CQ DE VK2SG - SYDNEY in SYDNEY K DE VK2SG NNNN.

If there is any one around they will then answer you through the repeater. It is a bit slow working that way, and if you can hear the station direct you may then work on the frequency but you do not give the time and date, nor do you finish up with NNNN. The repeater will remain quiet until you challenge it again. It will receive any message for you and store it for 24 hours. After the 24 hours it erases the message but retains your callsign and the callsign of the station that you called and informs you that there has been a message. This is working DX a different way, slow, but different. You must try it sometime "AREWISE."

Klaus K. Zielski, DF7FB, P.O. Box 1147 D-6455 Erlensee 1, F.R.G. has taken over the chores of the traffic manager of the DARC for RTTY - purposes. Klaus is looking for information that he can use in his local bulletins and publications. Send anything that you can to assist Klaus in his new endeavor to the address above.

Bruce Frahm K0BJ now settled aboard the ship "Yankee Trader" (we hope) writes, "the ship 'Yankee trader' will be leaving the Bahamas on 15 February for her 9th world cruise. Three hams will be

aboard, K5UC, NIDX (ex HS2B1G/KA6DX) and myself, K0BJ ex WA0TAS. I haven't met the other hams in person yet and this note is not speaking for their plans, only mine. I will have TS820, remote VFO, Kleinschmidt TTY and ST5000 TU for RTTY, and will be using dipoles, and possibly a beam antenna for IMM and DX operations during Feb. 15-Dec. 15 1979. I may also guest operate at some stops.

Enclosed is the 1977 itinerary, which will be similar to our route and dates for this years cruise, but not identical. I have marked operations that I intend to make with a dash in front of the name of the port, and many of the others will be possibly showing up. The main emphasis at many of the semi rare spots will be RTTY, and the other times will be given to CW, SSB, low band or whatever is felt is the greatest need from that area. It must be emphasized that this is a sightseeing trip, not a DX pedition and most stops are brief in nature, but when possible I will be trying to work a maximum number of feist ZS0'S. RTTY action will be at 090xmit, tuning up or down on transceive; CW will be around 025 QSX up/down or transceive and fone at low end of the bavelts that for DX Spots. Shipboard operations will be largely 14313, 14265 I4030 and 21360.

QSL's go to W0PAH with SASE/SAE IRC no contributions are solicited. I hold licenses for K0BJ/VP2V, K0BJ/C6A and VR6BJ. 5Z4 and CE0 are hopefully on the way, and many others will be applied for in person. Hope to work many of the guys this year from some interesting spots 73.

See Page # 13 Bruce

John Wood WB2VTD claims first RTTY QSO with South Pole on 13 Jan 79 with KC4AAA. I am not sure but believe that other south pole stations have been worked. I worked KC4AAD but still have not received a QSL card from a year ago. Any takes that can top that one?

Here is another one that is a first, WIMX the M.I.T. Radio Society (Massachusetts Institute of technology) has now worked all continents on all FIVE bands that is a

real tough one. Congrats to the operators at W1MX who have been K1MK (WA1RJB), W1XG (W2QHQ) WA2EYC, WB2CWQ, WB2MZE, WA4TTG, K85H, N0AL, and W0UC (WA0UCU) great work guys.

Contest logs were accepted for CARTG until 31 January 1979 due to the postal strike delaying the mails. May logs were returned to sender so it will be awhile yet until we get the results of the CARTG.

From Hal W9RY comes good news for those who might need a QSL card for QSO's with ON0NI. Sigge became a silent key in May of 1977. OH2LA now has Sigge's log books and QSL cards and will QSL to all. Don't forget the IRC's fellas and a note of thanks goes to Toivo Sorvali, Silmakiya 3, SF-00720 Helsinki 72, Finland.

The S.A.R.L. has set up a fund for handicapped hams in the names of Sigurd and Bjorn Mansnerus. Anyone wishing to donate to their foundation may do so by sending donations to SARL P.O. Box 306 00101 Helsinki 10 Finland.

Franco Fanti I4LCF, Via Dallolio n19, Bologna, Italy, writes:

"I do not remember if I have informed you of the good prizes offered by the I.A.T.G. for the Campionato Mondiale RTTY 1978 (score of BARTG - CARTG - SARTG - WAEDC - Giant RTTY Contest)."

"The first prize is the computer offered by the General Processor, a firm of computers of Florence, Computer called Child Z value Lire 700,000."

This prize is for the RTTY'er that has proved to have used home made equipment in the computer field in the contest RTTY or have introduced original modification in commercial equipment."

"This Campionato Mondiale RTTY 1978 is finished with the Giant Flash Contest (I am receiving in this moment the final score) and I ask your publicity on RTTY Journal for receive documentation for the computer prize."

"For the Campionato RTTY not is necessary submit documentation but for the computer prize is necessary this. Take note that not is important for this prize the position in the final score, but is necessary the prove of the use of this new

CONT. FROM PAGE 3

techniques."

Many thanks in advance for your help. Best 73s" Signed Franco Fanti I4LCF.

Here is a listing of some of the active stations that have been worked or noted on the barrels during the past few weeks.

K4GMH/VQ9 on Diego Garcia QSL via his stateside QTH.

9V1SI has been worked from Europe and only heard very weak in the U.S.

YB0YE has been seen on the band (20 meters) but not very strong.

VE6GBU/SU has not been able to get on RTTY due to equipment problems. He has parts on the way from Germany so watch for Willie.

ON7AZ the only non-club station on from Artwerp his name is ETIENNE.

ON6IA a new one from Belgium name ANTON.

4Z4KB Ran has good signals from Israel. SV1AB George QSL via box 564 in Athens.

OH0JN Ove. A new one and the only RTTY station from and Island.

5ZART Hermann in Germany only.

AL7J Ron from Anchorage with 599 sigs into Eucope.

OD5JW Wassim in Lebanon.

GV5TU John very active with strong sigs on 10 mtrs.

Other stations printed were PY2YFG, DJ7YR, PA3AEI, DM2EDL, HB7NG, F5DE, XE2DH, ZP5CD, DK1BX, DZ2X, CP6EE, YV5ZZ, and CE3CF.

Inputs this month came from IS0ESS, WA3IKK, W3KV, K7BV, and W9RY.

73 de Skip.

HAM HELPS

Phillip Shaffer, 6815 N.E. 204th St., Bothell, Wa. 98011 needs information about how to build RTTY demodulators and getting started in RTTY in general. He also needs to know where to find parts for Model 19 and 15 machines and 11/16th in paper tape. Also paper for both friction and sprocket feed machines. He needs paper tape reader brushes desperately. Any one that can help him?

A.M. Fitzgerald, 14 Carver Street, Springfield, Mass. 01108, Phone 413-734-4109 is interested in building a complete RTTY Station with a video monitor. He doesn't have a strong electronic background but wants to give it a stab. He also wants to include a morse code sender and receive it to show on a video monitor.

Donald Collins WA8, WQT, 412 Wooster Rd., Millersburg, Ohio 44654, would like to know how to transmit FSK with a swan 500CX using a HALST5.

Kontest Korner

BARTG 24th-26th March rules in Feb. 79 Journal

DAFG 5 May 1979 rules in Mar. 79 Journal

SARTG 18-19 August 1979

CARTG 20-22 October 1979

WAEDC 10th-12th November 1979

If any of the above are in error please write to me or give me a call on the telephone. Thank you. SKIP.

CQ DAFG - CONTEST

Please note: Revised rules, effective from Jan. 1st 1979

GENERAL: The Deutsche Amateur-Fernschreib-Gruppe "DAFG" sponsors the 8th DAFG-SHORT-CONTEST 1979 and welcomes participation of all RTTY-Amateurs inside and outside Germany. There will be a SW- and a VHF-Contest. Both Contests will be scored separately. The Contest is split in 5 single-contests within the year. After closing the 5th single-contest, the winner of the year in each classification will be stated.

SCHEDULE:

SW:

1st part Saturday January	20th, 1979 1300-1600 GMT
2nd part Sunday March	18th, 1979 0800-1100 GMT
3rd part Saturday June	09th, 1979 1300-1600 GMT
4th part Sunday September	09th, 1979 0800-1100 GMT
5th part Saturday November	24th, 1979 1300-1600 GMT

VHF:

1st part Sunday January	21th, 1979 0700-1100 GMT
2nd part Saturday March	17th, 1979 1200-1600 GMT
3rd part Sunday June	10th, 1979 0700-1100 GMT
4th part Saturday September	08th, 1979 1200-1600 GMT
5th part Sunday November	25th, 1979 0700-1100 GMT

BANDS: Shortwave: 80 + 40 m VHF: 2m + 70cm

CONTEST CALL: CQ DAFG - CONTEST. After each QSO the station having called last keeps the QRG. The previous holder should make QSY. This QSY-rule is not (not) valid for the VHF-part!

EXCHANGE: SW: RST / QSO-number (start with 001) / Name / QTH

VHF: same as SW, in addition: QTH-locator.

SCORING: Each station may be worked once per band.

SW: Each complete QSO counts 1 point on 80 + 40 meters.

VHF: Each complete QSO counts at 2 meters per each 10 km's one point, at 70 cm's per each 10 km's distance 3 points. Each different prefix, per each band will be counted as a multiplier. Contacts via repeaters are not (not) valid.

FINAL SCORE: Total of QSO-points multiplied by total of multipliers.

CLASSIFICATIONS:

SW:

Class A: SW-stations above 200 watts input

Class B: SW-stations up to 200 watts input

Class C: SWL-stations

VHF:

Class D: VHF-stations

LOGS: must contain: SW: a) Call / Name and complete address of participant (use block letters, please)

b) Classification

c) GMT / Call, Name, QTH of Partnerstation / RST and QSO-number sent and received / Band used / number of prefixes

d) Final score (logs without final score will count as checklog)

VHF: a) to d) same as SW

e) QTH-locator sent and received

SWL: For points, multipliers and scoring confirm as above. The same station may be reported maximum 5 times. Instead of Message received Info, the SWL should report Call of partnerstation (wkd).

RESULTS: The results will be published in the news-bulletins of the DAFG, in RTTY-magazine, in the DARC-magazine and foreign courtesy publications.

DEADLINE: Your Log should be in the hands of the Contest-manager not later than 20 days after closing each single Contest. Each later incoming Log will count as a checklog only. All decisions are final.

CONTEST-MANAGER: Klaus K. Zielski DF 7 FB P.O. Box 1147 D - 6455 Erlensee 1 West Germany.

8th SARTG WORLD WIDE RTTY CONTEST 1978 RESULTS

Class A Single Operator

CALL	QSO's	Points	CALL	QSO's	Points	CALL	QSO'S	Points
I3FUE	287	298,540	ZS6AKO	88	23,490	W8TOO	10	900
IT9ZWS	251	247,845	VE7DTA	61	23,345	G4EDR	12	840
K3KD	214	214,825	W5HEZ	65	21,980	SM0TIB	11	735
F9XY	240	240,800	VE7DLX	64	20,020	PA0KFF	9	700
HB9AVK	212	233,225	DT3CF	74	19,865	JRAG	12	675
SM6GVA	246	232,815	F2PY	53	19,180	VK8HA	5	300
W3FV	199	217,350	JA2JHR	57	17,955	W8GKW	5	125
K0BJ	203	211,640	OZ2X	46	17,760			
SM6ASD	206	207,260	I1EPJ	61	17,030			
DT3YSO	181	182,700	LA7AJ	60	16,770	CLASS "B" MULTI-OPERATOR		
I7FKO	197	170,000	HB9HK	67	16,100	I5MYL	209	244,925
EA8IY	174	164,745	DM5VVL	51	16,050	DL0TS	196	183,150
I2OLW	188	151,585	G3HJC	40	15,840	LZ2KRR	197	182,150
K8NN	171	151,470	EA4XW	60	15,640	I1COB	180	153,655
DT2EDL	159	150,060	DM2DLE	73	15,120	G3UUP	165	152,800
DF2KU	182	147,060	DM5XNN/P	49	14,980	DM3CM	158	146,150
W9RY	172	146,160	SM7BGE	50	14,145	DK0CW	135	99,450
DL2XP	151	140,180	VK2SG	50	14,155	OH1AD	136	99,000
WA9BOW	158	136,000	WB5QBY	50	13,750	OH1AR	149	97,650
G3RED	170	133,835	G3RDG	51	13,200	OZ7SAC	106	67,925
SM4CNN	161	126,000	SM7MO	51	12,740	YO3KWA	124	60,720
SM5EIT	144	120,815	W0MT	41	11,375	HA5KEM	109	57,330
I2DML	138	107,730	OZ1BGQ	47	11,340	TF3SB	123	54,200
W4CQI	143	103,740	DL8WA	48	11,125	VE3OCU	87	33,635
I5HZZ	131	102,845	OK2BJT	37	9,625	OK1KWN	50	16,200
IS0RUH	143	100,920	EA6EQ	52	9,350	FM5LG	40	9,750
DK1BX	120	100,800	LA2LJ	34	9,020	SK6GX/6	22	3,000
DJ2YA	116	95,265	9M2GR	40	8,960			
DJ6QT	113	90,560	SM6BUV	43	8,925	SWL's		
OH2ZY	135	86,435	DK5GG	25	7,375	F. Rossi	229	218,550
K6WZ	108	78,080	K4YSB	30	7,290	OK1-IL857	208	209,700
WA6WGL	110	73,815	EA3AZX	37	7,110	Niendorf	215	206,640
I0LVA	107	72,300	K5EV	27	6,405	G8CDW	104	72,600
SM6AEN	107	68,685	JR2TZL	34	6,240	Wustner	154	70,265
OH6YI	151	66,400	DL1OY	28	6,175	DM-8987/K	93	53,805
JA7ML	100	58,500	DM4MP	57	6,000	DM-7111/A	96	46,560
CE3MA	90	54,530	3D6AD	35	5,200	OK2-21478	162	32,965
DJ2YE	75	50,740	DM2CHD	39	4,800	OK1-20677	103	32,640
YV5GU	78	48,530	WB2VTD	25	4,270	Schonwalder	101	16,540
LU3BQ	74	45,305	WB2WZX	24	4,125	DM-8747/7	20	3,280
W3KV	75	44,220	DM4SDA	25	3,675	DM-2814/M	16	1,920
YO2TS	83	40,500	LA8SA	29	3,240			
VE2QO	118	38,280	DZ8GA	21	3,000	Check logs..Many thanks to:		
IV3PVD	81	37,835	DM4VDA	18	2,960	K7GW, W6JOX, IS0ESS, DT2GRO,		
DL6WZ	74	35,070	TF3US	22	2,800	IS0YPW, I3RUF.....		
DT6AK	78	29,260	DJ1XT	14	1,485			
SM6CAL	71	26,250	DM3YF	16	1,400			
WA6CQW	61	24,840	DM2BCD	19	980			
			K8UFW	12	900			

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CONT.

THE RTTY JOURNAL offers the RTTY Merit Award for single band WAC, the award is in the form of a certificate and is issued free upon presenting proof of contact to the QTH at the head of this column, WB6-CYA,. As of the end of 1978 the Award has been following Amateurs.

WAC 3.5MHZ

W1MX

WAC 7.0 MHZ

DLØTD

W1MX

WAC 14.0 MHZ

K3SWZ

WØMT

W5RYA

DJ8BT

SL5AR

DK4ZF

JH1TFE

I3-13-018

DJ1QT

W4ZLH

VP2MRW

F6ALL

K4YZV

W7JWI

SM6AEN

W1MX

W9OEQ

K6WZ

G3ZWV

DL8VX

W3EKT

WØJCO

PY2CYK

WB9LUK

WA6WGL

WB4TPU

K4GJW

DL8QP

I8YRK

G3YDR

I1PYS

LA2IJ

JA7ML

G3HJC

W8JMG

K1LPS

WB4VUP

W1GKJ

VE2QO

K4ZS

OHØNI

WAØYDJ/4

K4VDM

G4ALE

GW3IGG

K4JAFWA9AKT

W6JOX

JA4ONZ

BRS-18456

G3IIR

N3AI

I5HZZ

I5GZS

I2OLW

I5KPK

SM5EIT

WA8CZ8

WA9BOW

B. Niendorf

K4RN

ISØESS

K5GH/W5KHP

HB9AVK

WB6CYA

I2WEG

WB2VTD

WA6CQW

K. Wustner

KØHSC

WAC 210 MHZ

WØMT

DJ8VX

SM6AEN

K6WZ

W3EKT

WA6WGL

W6JOX

W4YJ

I5WT

HB9AVK

SM5EIT

WAC 28.0MHZ

FG7XT

WA6WGL

DJ8BT

W1GKJ

W6JOX

HB9AVK

SM5EIT

WORKED ALL STATES

K3SWZ

W2PLQ

K4YZV

FG7XT

W1GKJ

W4CQI

WA8NGJ

W9OEQ

I8AA

DXCC Listing as
of 1 Jan 1979

1. ON4BX
2. W3KV
3. I5KG
4. ON4CK
5. W5QCH
6. W8CQ
7. WA3IKK
8. DK3CU
9. W5EUN
10. G6JF
11. W2LFL
12. I5ROL
13. W4YG(K7BV)
14. W3DJZ
15. JA1ACB
16. K8YEK
17. I5WT
18. W1GKJ
19. W4CQI
20. DL8VX
21. K6WZ
22. W3EKT
23. W8JIN
24. W4EGY
25. I8AA
26. K3SWZ
27. OK1MP
28. W5VJP
29. K4YZV
30. K7BV
31. F6ALL
32. F5JA
33. HB9AVK

From the Publisher.

Hi gang.. lots of new news. First of all you will notethat George Hammond, WA6CQW has taken over Chuck, W6MNO's column. Chuck will be

missed and I am sure that we all would like to thank him in person.

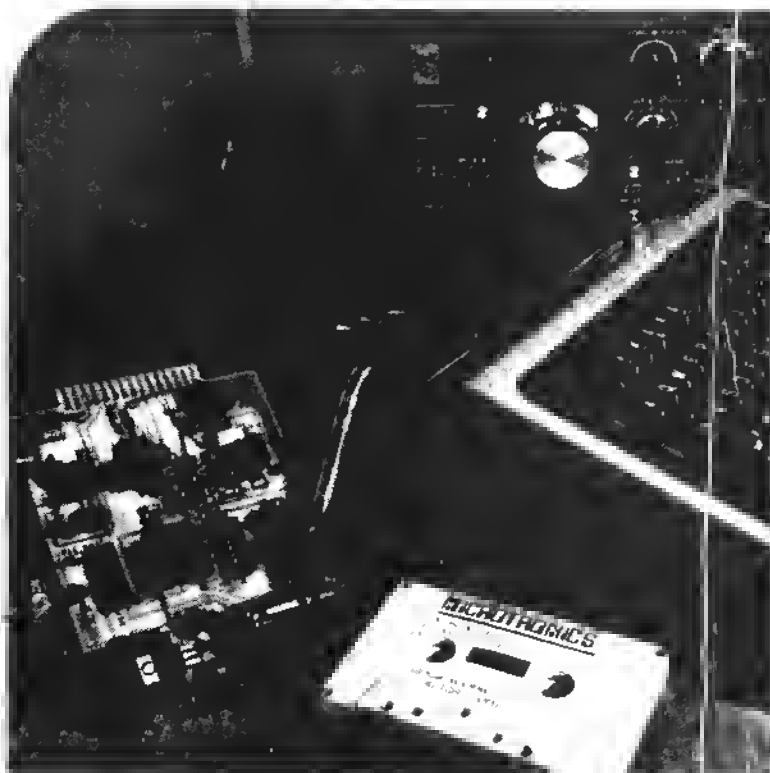
Chuck has retired now and will be moving around more so you all never know when he will pop-upin your neck of the woods.

John Goheen III will be taking on some of the editors work. John usually answers to the name of "Jay" around here as his father is also a John but John the elder just happens to be the guy I married recently. Jay has been in the Navy and retired recently with lots of electronic and printing experience. John(my guy) is retired from Scott Paper Company and now helps (?) me with the Journal. He answers most of the mail and puts the JOURNAL into the proper mail bags when it is time to mail the JOURNAL to you.

So hello to the new guys on the block... Take care and enjoy to the past Editor of Hits and Misses, Chuck. We all will miss you.

Hope tosee all of you in Dayton, April 27, 28, 29, 1979. RTTY-ers gather at the Imperial House North.

As ever,
Dee Crumpton-Goheen
Publisher

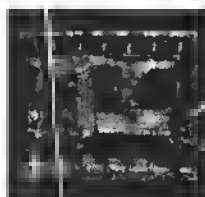


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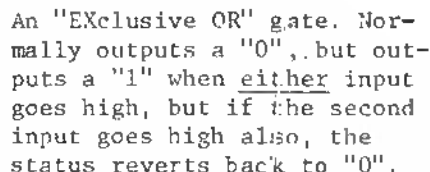
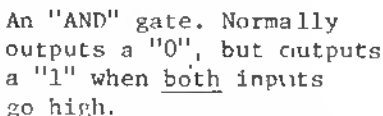
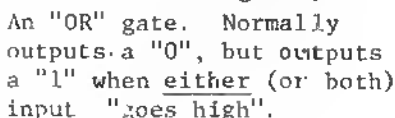
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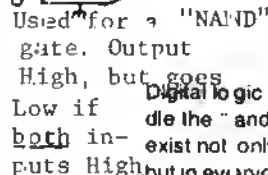
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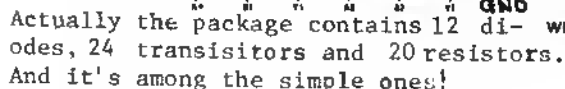


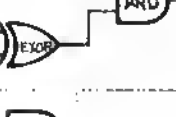


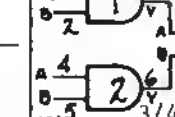



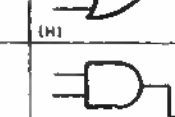

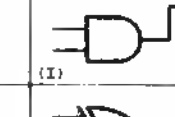
Used for an
"Inverter".
Output High,
goes Low on
High input.



Digital logic circuits are designed to handle the "and" and "or" relationships that exist not only in mathematical processes but in everyday life as well.

7408
Quad 2-in-
put AND
Gates.
Size: .75
x .25 x
.130 in.



 <p>(A)</p>	 <p>(F)</p>
 <p>(B)</p>	 <p>(H)</p>
 <p>(C)</p>	 <p>(W)</p>
 <p>(D)</p>	 <p>(I)</p>
 <p>(E)</p>	 <p>(J)</p>

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

10. You can play doubles at tennis there; but if a player on either team fails to show up, the game is called off.



VHF RTTY NEWS

Arny Gamson, K6PXA, 8034 Gentry

N. Hollywood, CA 91605

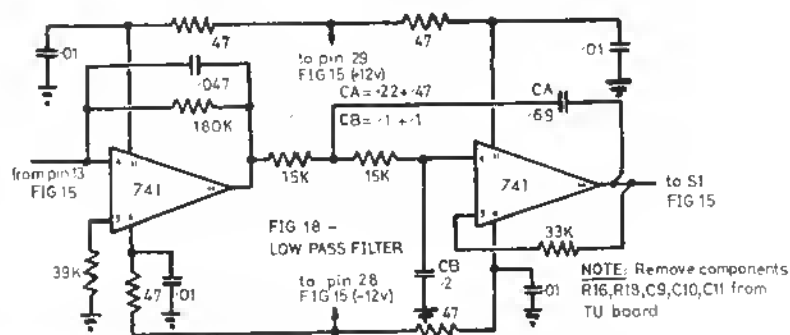


RC lowpass filter (R17, R19, C11) but it leaves a lot of room for improvement. The circuit below is adapted from the ST-6 design. The input, output and power connections refer to figure 9 of the second edition.

425 shift — The modification is very easy. Simply remove C2a (0.033 pF). C2 (9.1 pF) in parallel with L2 results in a calculated resonance within 4 Hz of the desired 1700 Hz. It is appreciated that such a simple step cannot produce an ideally balanced discrimination but because of its simplicity, possibly including a single pole switch to make the TU "dual shift," makes the modification worthwhile.

RTTY bartg newsletter journal of the British Amateur radio teleprinter group

Of all the improvements that can be made to a simple TU, inclusion of a good post detector lowpass filter is likely to give the most marked difference in copy of poor signals. The theory is that as a 45 Baud RTTY signal transmits all its information in the spectrum DC to 22 Hz a lowpass filter, of cut-off frequency say 25 Hz, wired immediately after the detectors will not remove any wanted signalling information but will attenuate unwanted higher frequency components i.e. noise, QRM etc. The basic ST-5 TU does contain a simple



The following are the most used manuals for the 28 ASR & KSR TTY;

BULLETIN NUMBER	CONTENTS	PRICE
217B	28KSR ADJUSTMENTS AND LUBRICATION	\$15.40
235B	28TD ADJUSTMENTS AND LUBRICATION	6.30
247B	28 REPERF ADJ. & LUB.	12.70
250B	28ASR KBD BASE & PERF ADJ. & LUB.	11.10
295B	MOTOR UNITS, COMPLETE MANUAL	4.75
1149B	28KSR PARTS	14.70
1161B	28TD PARTS	4.50
1167B	28 REPERFORATOR PARTS	8.45
1169B	28ASR PARTS	14.20

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Teletype Corporation
Bulletin Order Department
5555 Touhy Avenue
Skokie, IL 60076
Attn: Frank Sandy



A.D.M. Communications, Inc.

Teletype & Communications Equipment

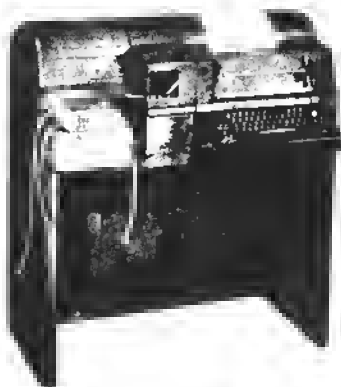
Doug Mathena

(714) 747-0374

1322 Industrial Ave. Escondido, California 92025

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Model 28ASR



Model 28KSR

WA6PMA

DOUG

HITS & MISSES

George Hammon WA6CQW
14215 Pecan Park Lane SP 73
El Cajon, CA 92021

FROM
THE
MAILBAG



With the beginning of this issue I will be writing the HITS and MISSES column. It will be my pledge to bring you, the readers, an informative column. But this requires INPUT, so let me hear from you. "Happiness is a full mailbag."

Being the new kid on the block, let me introduce myself. . . . I was born 47 years ago in St. Louis, Missouri and moved to San Diego in 1947. My XYL's name is Jeanne.

I have a degree in criminology and currently hold the position of forgery fraud investigator in the San Diego Police Department. In 1958 I earned my ham license and in 1965 I became interested in RTTY and have been hooked ever since.

At present, I use the Kenwood TS820S along with a Swan Tribander beam, Info-Tech TU M200 and M300 keyboard with video display. I generally use low power (40 watts) and try to participate in most contests. I have numerous other pieces of RTTY equipment such as; HAL ST5, TU Swan linear, etc. . . I won't bore you with a list of give the XYL a check list on where the money goes.

I was very happy to hear that Arny, K6PXA is on the mend. Hopefully he will soon be able to make the long drive to the San Diego Teleprinters Society meetings again. Get well, Arny and come see us.

Speaking of the San Diego Teleprinters Society, the new president for 1979 is Bob Smith, WB6ODR. The Teleprinters conduct meetings each fourth Tuesday of the month at the Bonanza Steak House, 8105 Clairemont Mesa Blvd, San Diego.

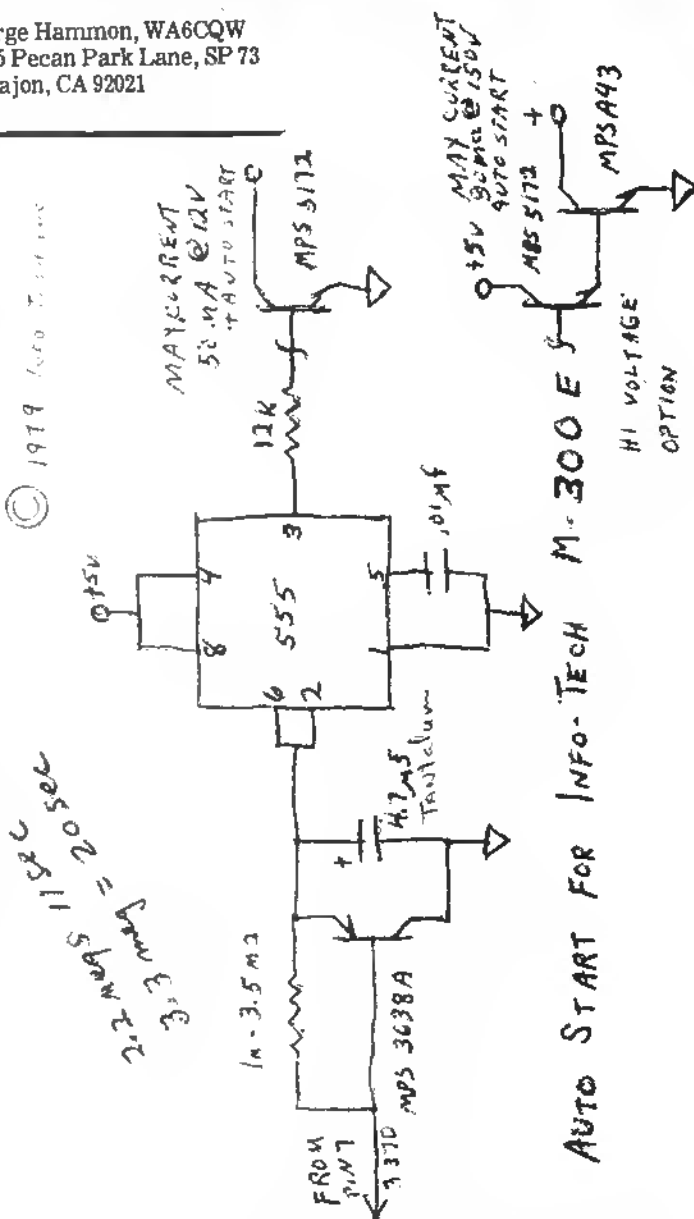
The first week of the new year the XYL and I drove over to Las Vegas, Nevada to attend the midwinter Consumer Electronics Show. We really enjoyed it. I chatted with many hams and stopped by the ARRL booth to put in a pitch for RTTY. I spoke with Leonard Norman about the chance of the SAROC ham convention starting up again and was left with an optimistic opinion that it well may. Also, I noticed that Hy Gain and Nutronics were in attendance and the size of the show was fantastic. The range of electronics devices on display would keep you drooling for days. The show program listed over 300 exhibitors. I spent over half an hour trying to find a parking place.

Dee, our publisher, is looking for articles, not only for the Journal but also for

the RTTY Handbook. So sharpen your pencils and submit your articles. In the last few weeks I received some nice notes from many of the RTTY club stations in Europe. Many included photos along with their QSL cards. So let me hear from you.

So long for now, George.

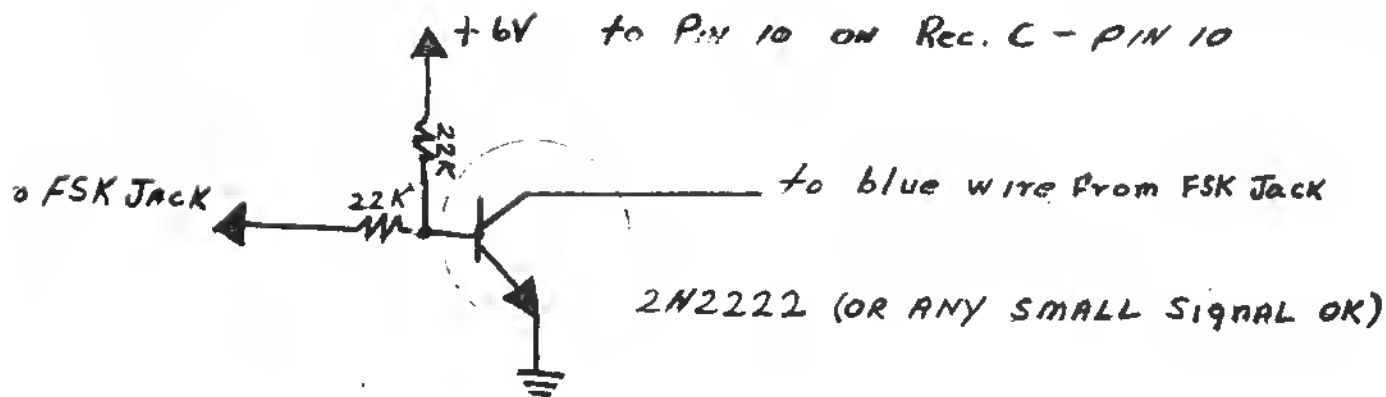
George Hammon, WA6CQW
14215 Pecan Park Lane, SP 73
El Cajon, CA 92021



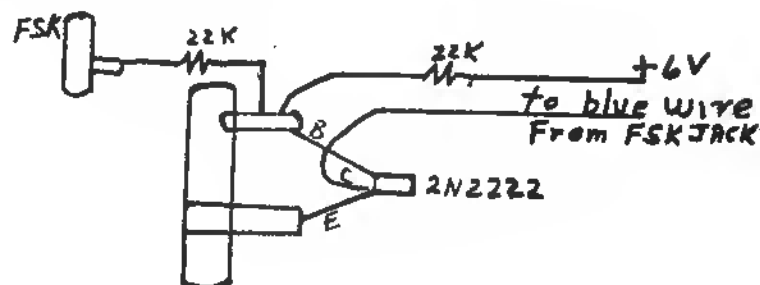
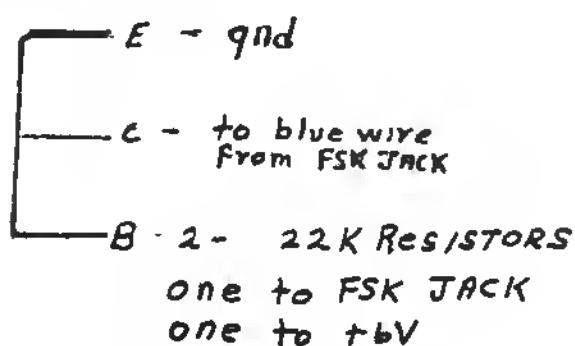
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M/V YANKEE TRADER'S 1977 ROUND THE WORLD CRUISE ITINERARY
by Rowland S. Wilson

Cruise Day	Time Kept Off GMT	Port No.	Time of Arrival	Days in Port	Port	Time of Departure	Naut. Miles	Days at Sea	Av. Spd. (kts)	Total Naut. Miles
1	-5	1	0905	2.06	-Freeport, Bahamas	1715	15 Feb	2.68	8.89	572
4-6	-5	2	18 Feb	0.25	Cap Haitien, Haiti	1108	20 Feb	0.96	8.21	572
7	-5	3	1008	0.25	Port Au Prince, Haiti	1602	21 Feb	5.64	7.23	761
13-22	-4	4	0730	9.38	Fort DE France, Martinique	1640	8 Mar	0.57	8.19	1741
23	-4	5	0620	0.53	Admiralty Bay, Bequia	1910	9 Mar	1.74	10.65	1853
25-27	-5	6	1250	2.08	Kralendyk, Bonaire	1255	13 Mar	3.18	9.86	2297
30-33	-5	7	1710	4.14	Cristobal, PCZ	0345	19 Mar	0.42	4.96	3049
33-37	-5	8	1350	4.14	Balboa, PCZ	1715	23 Mar	3.72	7.36	3099
41-48	-5	9	1125	6.79	-Guayaquil, Ecuador	0616	3 Apr	9.10	11.07	3893
57-59	-6	10	0837	2.41	-Easter Island	1841	14 Apr	4.57	10.37	6175
64-65	-8 1/2	11	0828	1.43	-Pitcairn Island <i>may stay 3-4 days this year</i>	1840	20 Apr	5.56	9.03	7314
71-76	-10	12	0806	5.63	Papeete, Tahiti	2320	1 May	0.43	9.16	8518
77-78	-10	13	0942	1.10	Port de Fare, Huahine	1212	3 May	0.11	9.15	8614
78-80	-10	14	1456	1.64	Uturoa, Raiatea	0610	5 May	0.18	6.95	8639
80-84	-10 1/2	15	1030	3.85	Vaitape, Bora Bora	0700	9 May	2.97	8.52	8669
87	-11	16	0630	0.47	Avarua, Rarotonga, Cook Island	1750	12 May	4.07	8.80	9288
91-93	-11	17	0805	1.89	-Pago Pago, Tutuila, Am. Samoa	0625	18 May	0.35	9.76	10045
93-96	-11	18	1455	2.63	-Upolu Is., Apia Harbor, W. Samoa	0602	21 May	2.72	10.15	10128
	-12/+12		2400		International Date Line	0000	24 May (23 May omitted)			
99-104	+12	19	0019	5.70	-Suva, Fiji	1700	30 May	2.64	9.58	10791
107-109	+11	20	0725	1.81	Vila, Efate, New Hebrides	0250	4 Jun	0.32	9.00	11399
109	+11	21	1036	0.19	Sesaki, Anchorage, Emae(Mai) Is.	1505	4 Jun	0.19	6.00	11469
109-110	+11	22	1807	0.25	Foreland Anchorage, Ile Epi	0001	5 Jun	0.36	10.70	11497
110-111	+11	23	0803	1.34	Santo, Espiritu Santu	1656	6 Jun	2.88	9.47	11589
114-116	+11	24	1407	2.09	Honiara, Guadalcanal, Solomon Is.	1618	11 Jun	4.10	9.52	12241
120-127	+10	25	1835	6.93	-Port Moresby, Papua New Guinea	1700	17 Jun	1.02	9.95	13177
128-129	+10	26	1725	0.59	Dairymple Islet	0740	22 Jun	3.58	9.69	13420
132-133	+9 1/2	27A	2009	0.52	Fannie Bay	0840	28 Jun	0.05	5.36	14254
133-136	+9 1/2	27B	0958	3.35	Port Darwin, Australia	1815	1 Jul	4.02	10.11	14261
140-141	+8	28A	1742	0.68	Harbor Entrance, Bona, Bali	0956	6 Jul	0.02	10.00	15237
141-148	+8/+7	28B	1025	7.24	Benoa Port, Bali	1605	13 Jul	4.25	10.24	15242
152-153	+7 1/2	29A	0000	0.49	Eastern Road, Singapore	0944	18 Jul	0.03	1.60	16277
153-168	+7 1/2	29B	1022	15.22	-Inner Harbor, Singapore	1540	2 Aug	1.71	9.70	16278
170-173	+7 1/2	30	1040	3.18	Penang	1505	7 Aug	6.11	8.94	16675

*also possibly HS +
9A11 during this time*

M/V YANKEE TRADER'S 1977 ROUND THE WORLD CRUISE ITINERARY
by Rowland S. Wilson

Page Two	Cruise Day	Time Kept Off GMT	Port No.	Time & Date of Arrival	Days in Port	Port	Time & Date of Departure	Naut. Miles	To Next Port		Total Naut. Miles
									Days at Sea	Av. Spd. (Kts)	
179-189	+5 1/2		31	1550 13 Aug	9.98	Colombo, Sri Lanka	1540 23 Aug	411	2.06	8.25	17987
191-193	+5		32	1530 25 Aug	2.03	-Malé, Maldives Is.	1615 27 Aug	1288	5.99	8.69	18398
199-204	+4		33	1455 2 Sep	5.11	Mahe, Seychelles	1737 7 Sep	951	4.64	8.53	19686
209-218	+3		34	0850 12 Sep	9.11	-Mombasa, Kenya	1505 21 Sep	565	3.01	7.83	20637
221-222	+3		35	1515 24 Sep	1.21	Mutsaers Island, Aguan, Ia.	2010 25 Sep	85	.48	7.34	21202
223-224	+3		36	0745 26 Sep	0.90	Zanzibar (Dzaudzi) Is Comares	0520 27 Sep	741	3.45	8.95	21287
227-229	+3		37	1605 30 Sep	1.73	Tulear, Madagascar	0630 2 Oct	1574	7.14	9.16	22029
236-248	+2		38	0920 9 Oct	12.20	Cape Town, So. Africa	1402 21 Oct	1705	7.71	9.20	23603
256-257	0		39	0605 29 Oct	1.49	-Janestown, St. Helena	1750 30 Oct	1770	7.90	9.34	25308
265-272	-3		40	1320 7 Nov	6.76	Recife, Brazil	0740 14 Nov	2096	8.38	10.42	27078
280-284	-4		41	1547 22 Nov	3.93	Port of Spain, Trinidad	1402 26 Nov	103	0.56	7.73	29174
285-287	-4		42	0322 27 Nov	2.03	St. Georges Harbor, Grenada	0405 29 Nov	37	0.21	7.40	29277
287-288	-4		43	0905 29 Nov	0.63	Hillsboro, Carriacou	0015 30 Nov	43	0.26	6.88	29314
289	-4		44	0630 30 Nov	0.46	Kingstown Bay, St. Vincent	1730 30 Nov	132	0.65	8.50	29357
289	-4		45	0900 1 Dec	0.42	Roseau, Dominica	1905 1 Dec	44	0.23	8.18	29489
290	-4		R/V	0030 2 Dec	0.05	Les Salles-Saint-Hippolyte, French Guiana	0140 2 Dec	73	0.39	7.85	29533
290	-4		46	1100 2 Dec	0.53	English Harbor, Antigua	2350 2 Dec	88	0.40	9.16	29606
291-292	-4		47	0928 3 Dec	1.31	Gustavia, St. Barthelemy	1650 4 Dec	14	0.07	7.77	29694
292-294	-4		48	1838 4 Dec	1.74	Philipsburg St. Maartens	1220 6 Dec	28	0.14	8.24	29708
294	-4		49	1545 6 Dec	0.36	Saba	1935 6 Dec	97	0.50	8.05	29736
295	-4		50	0738 7 Dec	0.40	-Port Purcell, Road Harbor	1708 7 Dec	12	0.06	8.18	29833
295-296	-4		51A	1828 7 Dec	0.60	-St. Thomas Bay, Virgin Gorda	0852 8 Dec	1	0.01	3.00	29845
296	-4		51B	0912 8 Dec	0.23	-The Baths, Virgin Gorda	1445 8 Dec	792	3.97	8.10	29846
300-302	-5		52	1403 12 Dec	1.43	-Nassau, Bahamas	0035 14 Dec	121	0.56	9.01	30638
302	-5		53	1400 14 Dec	-	-Freeport Harbor, Bahamas	-	-	-	-	30759

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1978

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Separate LEDs in two other quadrants monitor the status of the internal loop, the Signal Loss circuit and the Send/Receive mode of the terminal unit, making the SSD-100 a convenient display center of the various functions. A light sensitive photocell in the fourth quadrant monitors the ambient light conditions at the operating location and automatically adjusts the display's light output. Under normal conditions, the SSD-100 may be read comfortably from 75 feet.

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NEWS-NEWS-NEWS-Amateur Radio's Newspaper, "Worldradio". Trial subscription - Two issues for one dollar. "Worldradio", 2509-F Donner Way, Sacramento, California 95818.

NS-1A PLL Demodulator W/T \$28.95 ppd. Complete kit \$19.95 ppd. SASE for info. Nat Stinnette Electronics, Tavares, FL 32778.

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TELEPRINTER parts, manuals, gears, ribbons, paper, tape, converters; to-rolds. SASE for list. Wanted: TT, KL, parts, 2BP1 etc., tubes. Typetronics, Box 8873, Ft. Lauderdale, FL 33310 WAN7F-N4TT.

HELP need information on wiring of 28ASR also schematic for the ST-5 or where one is available cheap. K80X0

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The DOVETRON TBA-1000 Baudot-ASCII Code Translator is designed to interface Baudot and ASCII circuits. I/O may be low level polar (EIA RS232C or MIL 188C) or high level neutral (active or passive). Parallel ASCII is also available. A pre-loadable 192 character buffer prevents character over-runs when down-converting baud rates. ASCII Control characters may be used to command peripheral equipment and functions. Features such as Unshift/Space, LTRS Only, Blank Diddle, Variable Character Rate, LED Memory Status Indicators and TD Inhibit are standard. Baudot speeds of 45, 50, 57 and 75 bauds are front panel selectable. ASCII baud rates of 110, 150, 300, 600, 1200, 2400, 4800 and 9600 bauds are internally selectable via a BCD coded DIP switch. All baud rates are crystal controlled and programming instructions are etched on the PC board. The 3.5" x 9.0" x 17.0" package is self-contained and available as a table top or rack mount unit. Power requirements are 115/230 VAC, 40-400 Hz, 10 watts. A bypass option is available. Amateur Net: \$295.00 FOB. DOVETRON, 627 Fremont Avenue, South Pasadena, CA., 91030.

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Daytapro Electronics, (formerly Nudata Electronics) 3029 WILSHIRE LN. ARLINGTON HTS, IL 60004

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NEW CW ID UNIT. Includes many extras, on board interface for FSK and AFSK plus H.V. Interface, 10 Minute timer, variable speed 5-24 WPM, ON BOARD 7805 allows 5 or 12 volt use. \$37.90 kit. **MINI VERSION OV ABOVE, ID only with 7805 Regulator** \$21.95 Kit. **BOARD ALONE** (same for both units \$9.45. Power supply for above 5V at 1 Amp \$11.95 Kit. Daytapro electronics, (Formerly NuData Electronics), 3029 Wilshire Ln., Arlington Hts. IL 60004.

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TELETYPE EQUIPMENT AND SUPPLIES. Model 28 RO, KSR, ASR AND TAPE equipment on hand and ready to go. Some Model 14 equipment available also. Most 14, 15, 19, 28 parts and assemblies on hand. **WANTED:** Gears for all Teletype Corp machines especially 60 speed for Model 28's. Also want Model 15 KSR AND RO's from local region. P. Andersen 115 Boyken Rochester, Michigan 48063 313/652-3060.

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TELETYPE SUPPLIES, Technical manuals, equipment. 11/16" and 7/8" perforator tape. Page paper. New ribbons. Teletype Corp. maintenance manuals. Let me know what you need. Send 75 cents postage for 3 current catalogs. **JIM COOPER, W2JC/W2BVE, Box 73, PARAMUS, NJ 07652.**

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TELETYPE TD paper 11/16 oiled and yellow. Carton 10 \$3.00 wt. 13 lbs. Carton 40 \$10. wt. 47 lbs **ADD UPS wt. Harmon, 5628 10th Ave., S. Birmingham, AL 35222.**

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NS-1A PLL Demodulator W/T \$26.95 ppd. Complete kit \$19.95 ppd. **SASE for info. Nat Stinnette Electronics, Tavares, FL 32778.**

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SELL: TEST sets T S-2/T G (Teletype) sends normal or distorted signals. (60-100 speed), (110/120 VAC, 50/60eye). Cond: GOOD. Quantity available: 20. Rare find. \$65 each or best offers. **FOB; GOLD paper return address labels w/wo call (500) \$2.00 ppd or details SASE: D. Testa Jr., 390 Lincoln Ave. R.J, Newark, NJ 07104.**

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ELECTROSENSITIVE FAX paper \$4 roll (19" x 450') TS- 1060 (\$25), HO-10 (\$50), HP-400 (\$25), HP-415 (\$20), HP-430 (\$20), RCA voltomist (\$30). ALL FOB. W6UBS, (714)462-6318.

R390A's BY Collins and other manufacturers. Checked and aligned \$250.00 and up (714)222-9446, **WB6VBL, 1135 Alexandria Dr., San Diego, CA 92107.**

TELETYPE MANUALS — Model 28ASR, 3-volume set \$24.50 plus \$1.00 postage. Manuals also available for Model 15, 19, 32, 33, 35, plus thousands of others on military surplus receivers, transmitters, test sets. Send 50c (coin) for large list. **S. Consalvo, W3IHD, 7218 Roanne Drive, Washington DC 20021.**

COMPONENT UPDATE. All UT-4 components and programmed Proms per January and February ads. Reprint of UT-4 Trouble-shooting articles (1976/77 Journal) \$1.00 postpaid, courtesy airmail overseas. **Peter Bertelli, W6KS, 5262 Yost Place, San Diego, CA 92109. 714-274-7060.**

FACTORY ASSEMBLED ST-6/AK-1 AFSK with UT-4 terminal unit/speed converter/buffer. A real work horse and in excellent condition. \$450 or best offer ppd. Write **Dean Mellstrom, WB6JNV, 1612 Big Dipper Way, San Diego, CA 92073.**

TU POWER Transformer. 115 volts primary, 250 volta center tap at 60 ma and, 28 volts center tap at 500 ma secondaries. \$10, includes shipping. **Midnight Engineering Group, P.O. Box 349, Galesburg, IL 61401.**

MODEL 28 ASR Teletypewriters \$350-\$375. RO Consoles \$175. Paper winders \$35. RO- 3-speed teletypewriters \$175. Tape perforators \$50, much more. State your wants. Sens SASE for partial list to: GOODMAN, 5454 South Shore Chicago, IL 60615, (315) 753-8342.



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TH-5 TELETYPE TERMINAL UNIT

REVISED

This compact military unit, containing 15 tubes, supplied 20 ma of magnet current for a receiving and transmitting system operating on 1325 (Mark) and 1225 (Space) signals. It can be readily modified to receive and transmit with AFSK at 170 Hz shift in amateur service. Components are plainly marked, generally on two swingout boards mounted with screws. Instruments required to modify are a counter, an audio signal generator (use your receiver xtal. calibrator, setting the tuning control for the desired audio frequency), a VTVM or multimeter and an open circuit phone plug. Capacitors used for tuning should be mica or mylar of 300 volt rating. All work is referenced with the unit upside down, front panel near you.

POWERSWITCH.

Remove the RING switch, clip all wires, insulate each end (daub with fingernail polish). Mount a SPST toggle switch in this hole and run one wire of the power cord through this switch.

TO CHANGE THE AFSK FREQUENCIES. (Right hand board).

1. Remove the R 50 resistor and replace it with a 1 megohm resistor A3-B3.
2. Remove C 36- bottom side A8-B8.
3. Remove C 34 A5-B5.
4. Adjust both screwdriver slots of C 30 to point toward the panel.
5. Connect counter to Posts 4W-S. Place function switches in 4W and SEND. Apply Power.
6. Add capacitors to replace C 34 to produce as nearly as possible 2295 Hz. About 1800 mmfd is required. Stop a few Hz above 2295. Adjust both sections of C 30 for 2295 Hz. Remove power.
7. Using the topside terminals A8-B8 replace C 36 with about 1900 mmfd. Insert the open circuit phone plug in a SEND jack. Apply power. Adjust C 36 for 2125 Hz as near as possible. C 30 varies both the 2295 and 2125 Hz signals so that you may be able to split a small (3-5) Hz difference. Turn off power.

TO INVERT THE AFSK FREQUENCIES FOR AMATEUR CONVENTIONAL SHIFT

8. On bottomside of right hand board, term B 10, cut and tape BLUE-WHITE wire (R 53).
9. Same board, term D 10, remove WHITE-ORANGE-BLUE wire and solder to term B 10 (R 53).

TO REDUCE THE OUTPUT LEVEL.

10. Jumper Posts E-4 (SEND) and E-6 (RCV) and ground.

11. Lift lead on E-3 (SEND); connect to one lead of 1/2 watt 510 ohm resistor. Connect 10 ohm 1/2 watt resistor to other lead of 510 ohm resistor and ground (E-4). Connection junction of two resistors to E-3. This results in about 15 millivolt output, if too high for your transceiver (using setting of mike control as reference), reduce the value of the 10 ohm resistor.

TO ELIMINATE CARRIER SUPPRESSION AND DECREASE DISTORTION IN AUDIO SIGNAL.

12. Remove tube V-11.
13. Clip R 46 from F-3 (bottom right hand board).
14. Remove R-69 (D16-F16 r.h. board). Replace with 1500 ohm 1/2 watt resistor.
15. Clip R-70 (D16-F16).
16. Remove jumper F4-D4 if installed.
17. Remove leads from Pin 6 of V 8, solder and tape.
18. Clip R 71, D14-F14, C-44 at A-26.
19. Tube V 15 serves no purpose and may be removed.

DEMODULATOR MODIFICATION (left hand board-power off).

20. Remove V 7 Tube and V 6 tube. this defeats the original purpose of neon lamp E 9 which now becomes a pilot lamp. It also eliminates the receive low signal gate.
21. Jumper U-7 to U-12. Clip R 23 at U-10, R 22 at U-7, R 30 at X14.
22. Install some type of binding post or test lead socket in one of the ventilation holes on the front panel above the RING switch side. Connect an 0.01 mfd capacitor to ground. Connect a 1 megohm resistor through a lead to terminal Z-9 (top or bottom of board).
23. Locate the two stacks of transmitting type capacitors on the right hand top side of the chassis. Remove the left hand board.
24. Remove both stacks. There are nuts on the bottom side, re-install the screws with the heads on the bottom side and nuts on topside. Be sure to use the insulating washers, flat washers and lock nuts. Mark on the chassis top, the designations C-14-C-15 and C 10-C11-C12.
25. Install the capacitor removed from C 12 (0.02 mfd) on the inboard screws marked C14-C15. Add a soldering lug between a pair of nuts on each screw on topside of chassis. Replace l.h. board.
26. Remove tube V 5.
27. Connect the audio generator and counter to terminals 4W-R.
28. Connect a DC voltmeter Positive (start with a high range setting) to the new test jack and ground. If a VTVM, offset the ZERO control to make the hand be about center scale. If a multimeter, watch

polarity closely when the unit is turned on; reverse if necessary. Short or jumper the screws for C10-11-12 (outboard).

29. apply power. Set the audio frequency to about 2500 Hz. Increase the level until the meter responds to the signal.

30. Tuning the audio generator from a higher frequency, determine the resonant frequency peak by closely watching the meter. this is broad, but patience will allow determination within one minor scale division on the meter. The frequency should not be lower than 2295 Hz but as high as 2335 or so is acceptable. The 0.02 mfd capacitor may be added to if necessary. If the frequency peak is too low, then remove and build a stack to meet this requirement. Use as sensitive a meter range as possible. Watch your fingers, there are high voltages present and the AC voltages on the screws is high.

31. Turn the audio level to off.
32. Reverse the meter leads (multimeter). Remove the short from C 10 and place on C 14.

33. Connect an 0.02 mfd capacitor to terminals for C 10. Increase the audio level. Tuning from a higher audio frequency, determine the resonant frequency and adjust the value as necessary to obtain not higher than 2125 Hz nor lower than about 2075 Hz.

34. Remove the short from C 14. Vary the audio frequency carefully. The meter should read zero (crossover) at close to 2110 Hz. The maximum voltages-positive versus negative-should be similar but is not critical. Remove power, reduce audio level to zero.

35. If it is necessary to have more than 20 ma magnet current as for a Model 15-19, with magnets connected in series at 30 ma, locate the grey or black large size resistors in the center of the bottom of the chassis. Parallel resistors to make a total of 10,000 ohms of at least 10 watts and add to the left hand resistor.

36. Re instal tube V 5. Arrange to monitor the current at the receive jack.

37. Apply power (observe polarity of current meter-reverse if necessary). The current should be about 20 ma or 30-35 ma if modified. Insert the open circuit phone plug in one SEND jack. The current should drop to zero. If not, determine if the HOME COPY jumper is in place across D5-F5. If at some later experience with the TH-5 in use, the home copy does not work properly, parallel a 100,000 ohm resistor at R 41, B25-F25. Remove the phone plug.

38. Increase the audio signal input level. Vary from 2125 Hz to 2295 Hz. The current meter should change from some value to zero. At 2110 Hz, the meter may indicate a

CONTINUED

small current because the output tube is not operating as an ideal switch, however the magnets should have dropped out a current much above this value.

TO USE THE TH-5.

39. Connect the CONT leads to the PTT leads of your transceiver. Connect the 4W-R posts to the 500 ohm audio output. If only 8 ohms is available, insert a small 8 ohm voice coil to 500 ohm line transformer. Connect the 4W-S posts to your microphone input leads. Probably a new input plug is desirable. Observe ground leads and use shielded cable.

40. Plug your machine magnet plug into the RCV jack and the keyboard plug into the SEND jack.

41. This modification uses the transceiver in the Lower Sideband position for transmit and receive and is compatible with two meter FM.

42. For a receiving indicator, use the 'Flipping Line' type scope indication. Almost any scope should be useable. Set the horizontal sweep to show three or four intermingled 'X' shaped lines (120 Hz sweep or so) when you touch the vertical input with your finger. Connect the scope vertical input to the new test jack. Using a VTVM with the ZERO offset to center scale is also acceptable. With the receiver audio gain at zero and the terminal unit operating, set the vertical gain control for about one inch positive deflection. Insert the open circuit plug in the SEND jack. The trace should momentarily jump negative about the same amount. Repeatedly hitting a keyboard key should produce a pattern of horizontal lines connected by random interconnecting lines. If the scope has a DC input, some of the jumpiness of an AC only scope input is reduced, but is not a requirement. To tune in a receive signal, center the horizontal lines about equally above and below a reference line, a meter should hover near zero. Receiving should be possible in either NORM or REC positions of the function switch. When printing, tune the desired signal from a high audio tone until it starts to print. This is because the TH-5 does not have a band pass filter system in its input and harmonics of the received signals (if lower than the standard tones) can give erroneous outputs and only garble will print.

43. Activate your transceiver in the transmit mode (LSB). Put the function switch in the SEND position. Adjust the mike gain control for normal drive level. This RTTY signal is equivalent to an AM signal so be careful of the power input to the transmitter.

44. In the SEND position, it should be possible to obtain local or home copy. If while receiving a RTTY signal, the machine goes into FIGS or LTRS, when not desired, reduce the receiver gain

control to zero and operate the appropriate LTRS or FIGS key and the machine should return to the desired mode. If using separate receiver and transmitter and the receiver does not mute when the transmitter is on, it will be necessary to open the terminal unit receive input to obtain home copy.

PERFORMANCE

The characteristics of a TH-5 modified by W4YZ (AAM4YZ) are:

AFSK output frequencies — 2122 Hz and 2298 Hz, at 15 millivolts.

Input level to cutoff magnet current — 15 mv.

Input level to limit in amplifiers — 80 mv.

Straddle tuning 2210 Hz — narrowest shift giving print — 25 Hz.

Peaking signal input at 2125 Hz — narrowest shift giving print — 100 Hz.

Peaking signal input at 2125 Hz — print obtainable to at least 1000 Hz shift.

Modified TH-5 will normally stay in MARK except for extraneous signal effects.

Some of the preceding was obtained from a variety of sources.

J.H. MCADAMS W4YZ (Army MARS AAM4YZ)

"SECOND LOOK AT THE YAESU FR-7/RTTY CONVERSION"

Recently going through some older RTTY JOURNALS, I ran across an article by JA1BRK Tachio on conversion of the YAESU FR101 receiver mode switch to add the CW narrow shift (600 Hz) filter to the RTTY position (JAN 75).

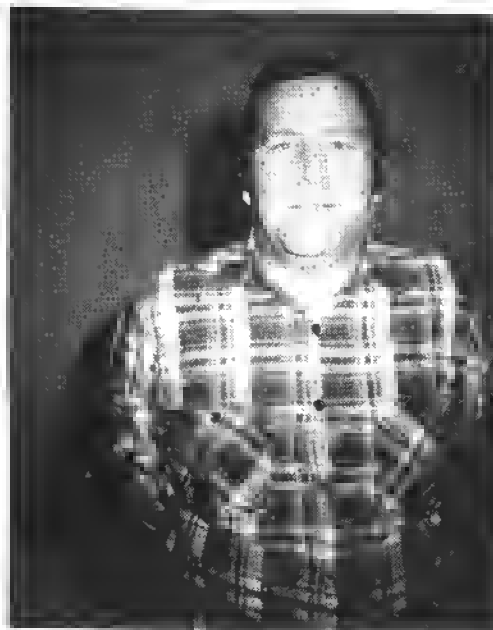
As any FR101 owner has probably noticed, the RTTY mode selector is wired to USB. This makes it difficult and sometimes impossible to receive correct RTTY without the aid of a normal-reverse network in the terminal unit. Step 1 in the diagram changes the RTTY mode selector to LSB instead of USB. At this point, also note that the RTTY mode selector position has a wider bandwidth window than either of the normal sideband positions. Step 2, though working in limited spare, is quite simple and involves the addition of two short jumper wires. Note that in the YAESU FR101 Manual, page 18, the cutting of the jumper wire between pins 6 and 7 of S3C wafer switch is not clearly defined. This step is the last step in switching the narrow cw filter up to that also of the RTTY mode position. CW and USB operation is not lost as a result of this conversion.

After completion, which takes maybe a half-hour for us slow pokes, I found that my disbelief of allowing the cw filter to pass a RTTY signal because of its narrowness was soon put to rest. Note: RTTY space signals do not pass through the normal wired CW-NARROW filter position.

This conversion is fantastic and I don't know how I got along without it? Because of the wider window bandwidth in the RTTY position, the "new" RTTY filter not only passes all 170 Hz. signals, but actually acts like a whole different filter in sound when compared to the normal cw filter. In fact, I find that I am using the RTTY position now for extremely difficult QRM cw signals. One does not have to be a teletype-nut to take advantage of this conversion.

Mike Stone WB0QCD

schematic page 20



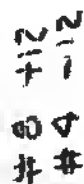
John P. Goheen III Editor

Murphy's Law

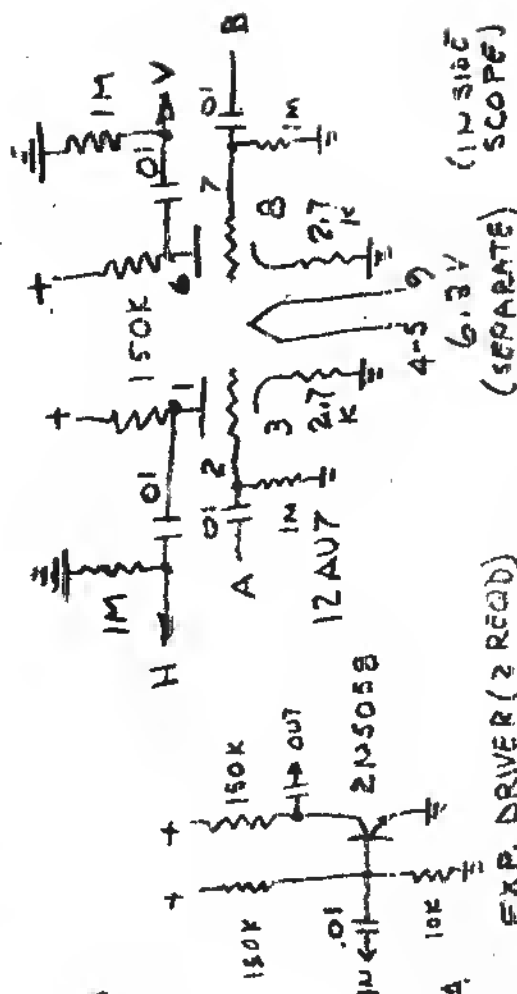
In any calculation, any error which can creep in will do so.

Any error in any calculation will be in the direction of most harm.

200-300 EACH SIDE C.T. 30-50 MA MAX.



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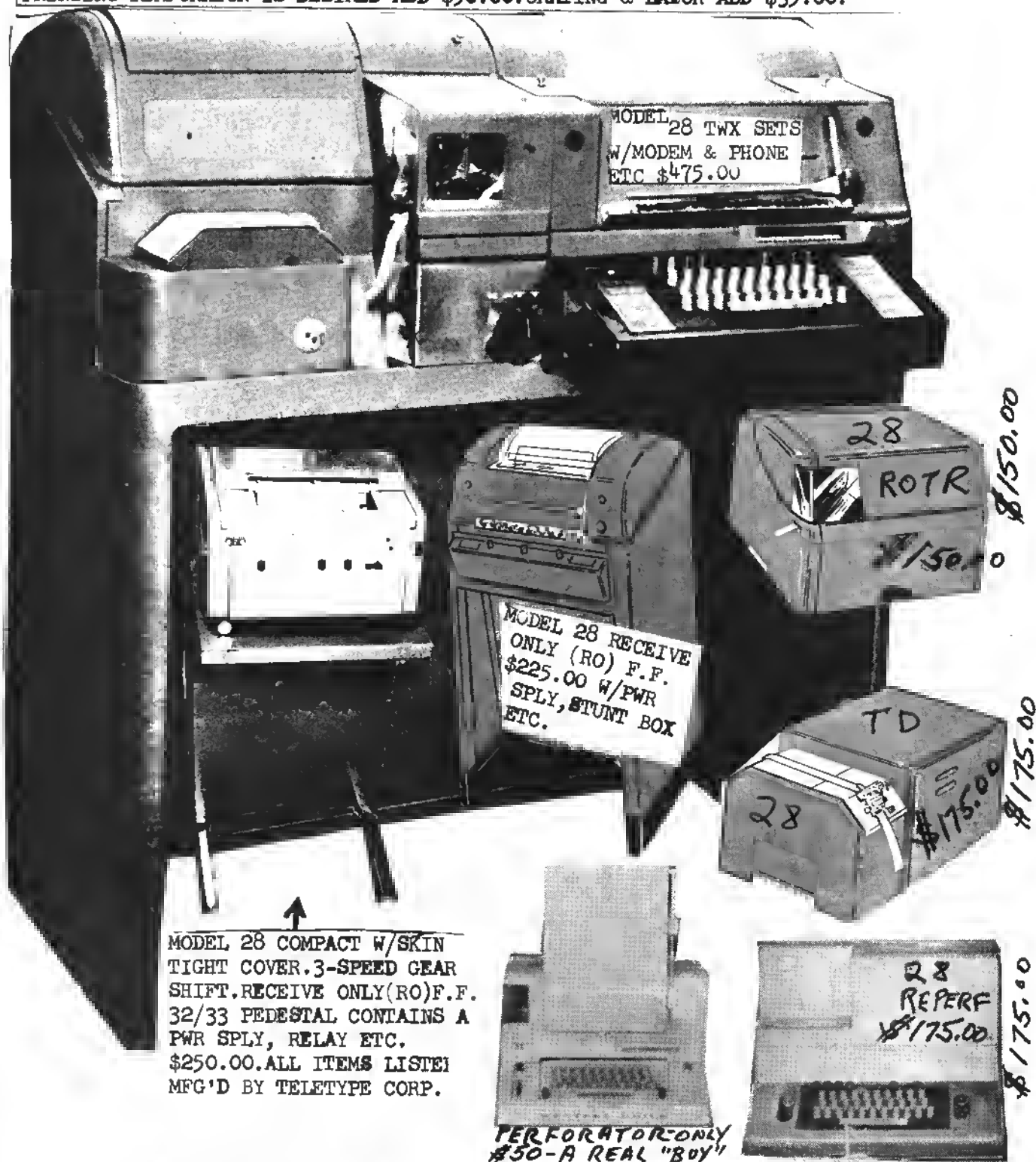
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REPLACES 12407)

MODEL 28 ASR (AUTOMATIC-SEND-RECEIVE) COMPLETE W/TD (TRANSMITTER DISTRIBUTOR), PWR
 SPLY, STUNT BOX, PERFORATOR ETC. SPECIFY SPROCKET OR FRICTION FEED \$375.00. IF A
 PRINTING PERFORATOR IS DESIRED ADD \$50.00. CRATING & LABOR ADD \$35.00.



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Qty & dealer disct's. Prices are picked up Chicago. Add \$25 labor & crating or
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 Antique telegraph and telephone eqpt. State your wants. CHARLIE

INTRODUCING. . .

COMPUTERIZED RTTY

INCREASE YOUR RTTY OPERATING PLEASURE WITH THE BTA-1 MICROPROCESSOR CONTROL CENTER FROM MS COMM - THE COMPUTER CONTROL PEOPLE SPECIALIZING IN AMATEUR RADIO PRODUCTS.

Our system directly interfaces to your existing Baudot or ASCII equipment - there is nothing else to buy. The BTA-1 exceeds the capability of the "FIFO-UART" system you're probably using now, while providing complete BAUDOT to ASCII and ASCII to BAUDOT conversion capability. The BTA-1 is easily installed. You don't have to be a microprocessor expert, as our device connects between your terminal unit and loop peripherals for complete RTTY control.

CHECK OUT THE BTA-1 STANDARD FEATURES

- UTILIZES STATE-OF-THE-ART 8085 MICROPROCESSOR DEVICES
- PROVIDES FULL BAUDOT-ASCII CONVERSION - USE AN ASCII KEYBOARD AND DISPLAY, OR CONVERT YOUR PRESENT FIVE LEVEL EQUIPMENT TO ASCII INSTANTLY WHEN THE F.C.C. ACTS
- CRYSTAL CONTROLLED SPEED GENERATOR ALLOWS "ON-LINE" 60 wpm TO 100 wpm CONVERSION
- UART QUALITY CHARACTER GENERATION IS PROVIDED BY THE BTA-1's TWO SERIAL-PARALLEL DEVICES. BOTH RECEIVE AND TRANSMIT SIGNALS ARE PROCESSED
- UNIQUE 1024 CHARACTER BUFFER (FIFO) ALLOWS MESSAGES TO BE PRELOADED-ALARM SOUNDS WHEN OVERFILL THRESHOLD IS REACHED
- AUTO ID - SENDS YOUR CW ID UPON DEMAND, OR EVERY TEN MINUTES WHILE YOU'RE ON THE AIR
- CANNED MESSAGE CAPABILITY ALLOWS INSTANT RECALL OF 165 CHARACTERS. MESSAGE IS ENTERED FROM YOUR KEYBOARD AND A FLIP OF A SWITCH PLACES THE ENTIRE MESSAGE ON THE FIFO FOR TRANSMISSION - ELIMINATES "RY" TEST TAPES AND EQUIPMENT OR PIX LISTS
- LED DISPLAY INDICATES AVAILABLE INTERNAL BUFFER SPACE
- 'SELCAL' AUTOSTART CONTROL - YOUR PRINTER REMAINS OFF UNTIL A PREDETERMINED FIVE CHARACTER SEQUENCE IS RECEIVED
- ALL FUNCTIONS ARE CONTROLLED BY TOGGLE SWITCH ACTION

The BTA-1 accepts FSK voltage level input available from most amateur terminal units and interfaces either 20 or 60 mA RTTY loops. All external connections are optically isolated for maximum safety and noise immunity. The BTA-1 RTTY control unit is available in kit form with quality 5"×8" PC board and complete instructions. A fully assembled and tested unit is also available. Power requirements are +5, +12 and -12 Volts.

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Send us your QSL card for additional information about the BTA-1 and other microprocessor amateur products.

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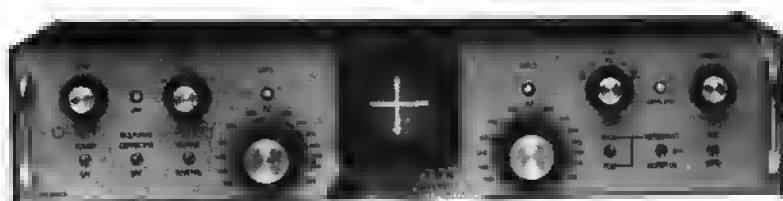


MPC-1000C

Multipath Correction
In-Band Diversity &
AFSK Tone Keyer

Amateur Net: \$545.00

Standard features include CONTINUOUSLY tuneable Mark and Space channels (1000 Hz to 3200 Hz), Dual Mode (MARK or FSK) Autostart and internal high level neutral loop keyer (20 to 60 ml). Both EIA and MIL FSK outputs are provided for direct interface to microprocessor and video terminal peripherals.

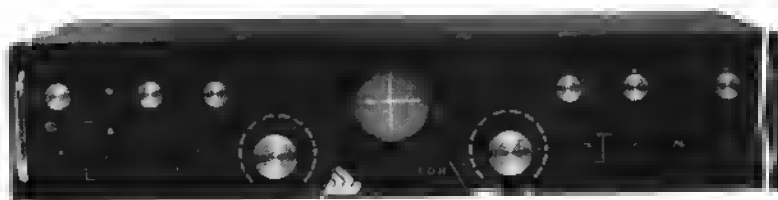


MPC-1000CR

Signal Regeneration &
Speed Conversion

Amateur Net: \$645.00

A front panel switch permits internal TSR-200 Signal Regenerator-Speed converter assembly to electronically "gear-shift" between 60, 67, 75 and 100 WPM. All incoming and outgoing signals are regenerated to less than 0.5% bias distortion. Also available with DIGITAL Autostart (TSR-200D); Amateur Net: \$695.00



MPC-1000R/- TSR-500

Dual UART Regeneration,
Speed Conversion, 20fj
Char. Memory, Word Cor-
rection & DIGITAL
Autostart

Amateur Net: \$895.00*

The MPC-1000R/TSR-500 provides Preloading and Recirculation of the 200 character FIFO Memory, a keyboard-controlled Word Correction circuit, Variable Character Rate, Tee Dee Inhibit, Blank/LTRS Diddle, a Triple Tone-Pair AFSK Tone Keyer and a Character Recognition/Speed Determination DIGITAL (DAS-100) Autostart mode.

*The MPC-1000R is also available without a TSR assembly and functions as a MPC-1000C with a Triple Tone-Pair AFSK Tone Keyer. This "Basic-R" permits future expansion with a TSR-100, TSR-200, TSR-200D or TSR-500 by simply lifting the lid and plugging in the appropriate TSR assembly; Amateur Net (Basic-R): \$595.00

Your QSL will bring complete specifications, or call: 213-682-3705.



627 FREMONT AVENUE
(P. O. BOX 267)
SOUTH PASADENA, CA. 91030

MPC-1000R BY DOVETRON

MULTIPATH CORRECTION, IN-BAND DIVERSITY, SIGNAL REGENERATION,
UP-DOWN SPEED CONVERSION, 200 CHARACTER FIFO MEMORY,
KEYBOARD-CONTROLLED WORD CORRECTION & DIGITAL AUTOSTART



THE MPC-1000R REGENERATIVE RTTY TERMINAL UNIT

The DOVETRON MPC-1000R is a complete Transmit-Receive modem designed for optimum radio teleprinter communications on land, sea and in the air.

Standard features include a high level loop supply and keyer (neutral or polar), EIA and MIL FSK outputs, a phase-continuous AFSK Tone Keyer with three selectable Mark - Space - Shift tone pairs, Mark, FSK & Digital Autostart, Automatic Markhold, an internal RY Generator for terminal unit Self-Test and circuit adjustment, and a Signal Loss Alarm circuit.

The MPC Series is available in six different models to meet your exact requirements.

Complete specifications are
available on your request,
or call 213-682-3705.



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South Pasadena,
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RTTY Journal

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